

REMARKS

Entry of this Amendment and reconsideration are respectfully requested in view of the amendments made to the claims and the remarks made herein.

Claims 1-7 are pending and stand rejected. Claims 5 and 6 have been amended. No new matter has been added.

Claims 1 and 5-7 are rejected under 35 USC §102(a) as being anticipated by Song (USP 6,560,371). The Office Action states that the reason for the rejection is set forth in the previous Office Action dated 7/15/2004.

Applicant respectfully disagrees with, and explicitly traverses, the reason for rejecting the claims.

Song, as read by the applicant, discloses an apparatus and method using M-ary pyramid decomposition in combination with N-scale tiling to reduce the computational complexity in determining motion vectors. Song describes the M-ary pyramid decomposition with regard to Figure 3 in col. 5, lines 66- col. 6, lines 32, which state in part, “the mean pyramid comprises a plurality of levels 310, 320, 330. The lowest level 310 is an original image frame . . . having . . . pixels 311. . . [A] next higher level is generated by lowpass filtering and downsampling . . . thereby generating a single pixel value 321 in level 320. In turn, . . . pixels 322a [are] used to generate a single pixel value 331 in level 330 . . . In a mean pyramid, the parent pixel value is derived by taking the average of its four children pixels.” Hence, Song teaches progressively combining pixels to obtain a single pixel representative of the pixels in a lower level. The single pixel is the average of the pixels that are combined.

On the other hand, a histogram represents a count of the number of values that have a particular distribution. As the applicant would note, a histogram is “a graph of frequency distribution in the form of a series of rectangles whose width and area correspond to the range of the class interval and the quantities represented.” (see, p. 599, Funk & Wagnalls New Comprehensive International Dictionary of the English language, 1974). Song fails to teach or suggest “computing a histogram,” as is recited in the claims, as the progressive combining of lower level pixels into a higher level pixel does not constitute a histogram.

It is well recognized that to constitute a rejection pursuant to 35 USC §102, i.e., anticipation, all material elements recited in a claim must be found in one unit of prior art.

Song cannot be said to anticipate the invention recited in independent claim 1 because Song fails to disclose material elements claimed. More specifically, Song fails to disclose the element "computing a histogram of luminance or chrominance of original values," as is recited in the claim.

Having shown that Song fails to disclose a material element claimed, applicant submits that the reason for the rejection has been overcome. Applicant respectfully requests withdrawal of the rejection and allowance of the claim.

With regard to independent claims 5-7, the examiner rejected these claims reciting the same reason used to reject claim 1. However, for the remarks made with regard to claim 1, which are applicable and reasserted, as if in full, applicant submits that claims 5-7 include subject matter not disclosed by Song and, thus, are patently distinguishable from the apparatus disclosed by Song.

Applicant submits that the reason for the rejection has been overcome and can no longer be sustained. Applicant respectfully requests withdrawal of the rejection and allowance of claims 5-7.

Claims 2-4 are rejected under 35 USC 103(a) as being unpatentable over Song in view of Hampson ("Motion Estimation in the Presence of Illumination Variations"). The Office Action states that the reasons for the rejection are the same as set forth in the previous Office Action. More specifically, Song fails to disclose any sub-analyzing steps. Hampson teaches the concept of such well known sub-steps of calculating a translation parameter g and a width variation parameter H of the histogram. Therefore it would have been obvious having both Song and Hampson to exploit the common histogram manipulation techniques as taught by Hampson in the processing method of Song.

Applicant respectfully disagrees with, and explicitly traverses the reason for rejecting the claims. A claimed invention is *prima facie* obvious when three basic criteria are met. First, there must be some suggestion or motivation, either in the

reference themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the teachings therein. Second, there must be a reasonable expectation of success. And, third, the prior art reference or combined references must teach or suggest all the claim limitations.

As noted above, Song fails to teach or suggest a histogram and while Hampson discloses that histograms may be used, Hampson further teaches away from using histograms (see p. 374, first col., which states, in part, “[s]uch histogram matching is simple and robust and allows two illumination variation parameters to be determined for the image at instant t . . . Even sophisticated techniques based on histograms do have one serious drawback though. They are based on the hypothesis that illumination variations are global . . . In order to tackle the problem, we decide to model the illumination variations directly on the image rather than their histograms. (emphasis added).

Hence, even if it could be said that Song did disclose a histogram, which the applicant repeats does not, one would not be motivated to combine the teachings of Song and Hampson, as Hampson teaches away from using a histogram of illumination variations.

Having shown that the teachings of the references, individually or in combination, fails to suggest or provide motivation to develop the novel features claimed, applicant submits that the present invention is not rendered obvious by the cited references. Applicant respectfully requests withdrawal of the rejection and allowance of the claims.

Although the last Office Action was made final, this amendment should be entered. Claims 5 and 6 have each been amended to correct the form of the claims. Since no matter has been added to the claims that would require comparison with the prior art or any further review only require a cursory review is required by the examiner. The amendment therefore should be entered without requiring a showing under 37 CFR 1.116(b).

For all the foregoing reasons, it is respectfully submitted that all the present claims are patentable in view of the cited references. A Notice of Allowance is respectfully requested.

Respectfully submitted,

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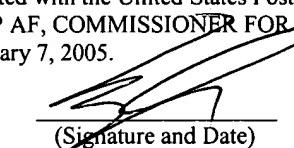
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